Pentane, 2-iodo-

Other names:	2-Iodopentane
	Pentane, 2-iodo-, (.+/-.)-
	s-Amyliodide
	sec-Amyl Iodide
Inchi:	InChI=1S/C5H11I/c1-3-4-5(2)6/h5H,3-4H2,1-2H3
InchiKey:	JUPBFIYJUCWJCT-UHFFFAOYSA-N
Formula:	C5H11I
SMILES:	CCCC(C)I
Mol. weight [g/mol]:	198.05
CAS:	637-97-8

Physical Properties

Property code	Value	Unit	Source
gf	46.90	kJ/mol	Joback Method
hf	-74.94	kJ/mol	Joback Method
hfus	9.59	kJ/mol	Joback Method
hvap	35.71	kJ/mol	Joback Method
log10ws	-2.98		Crippen Method
logp	2.610		Crippen Method
mcvol	107.130	ml/mol	McGowan Method
pc	3411.87	kPa	Joback Method
rinpol	873.00		NIST Webbook
rinpol	873.00		NIST Webbook
ripol	1092.00		NIST Webbook
ripol	1092.00		NIST Webbook
ripol	1177.00		NIST Webbook
ripol	1177.00		NIST Webbook
tb	406.50	K	Joback Method
tc	613.94	K	Joback Method
tf	189.17	K	Joback Method
vc	0.398	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	172.15	J/mol×K	406.50	Joback Method
cpg	182.14	J/mol×K	441.07	Joback Method
cpg	191.61	J/mol×K	475.65	Joback Method
cpg	200.59	J/mol×K	510.22	Joback Method
cpg	209.09	J/mol×K	544.79	Joback Method
cpg	217.13	J/mol×K	579.36	Joback Method
cpg	224.75	J/mol×K	613.94	Joback Method
dvisc	0.0102765	Pa×s	189.17	Joback Method
dvisc	0.0037890	Pa×s	225.39	Joback Method
dvisc	0.0018416	Pa×s	261.61	Joback Method
dvisc	0.0010668	Pa×s	297.84	Joback Method
dvisc	0.0006956	Pa×s	334.06	Joback Method
dvisc	0.0004932	Pa×s	370.28	Joback Method
dvisc	0.0003718	Pa×s	406.50	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.37212e+01
Coeff. B	-3.37291e+03
Coeff. C	-5.68400e+01
Temperature range (K), min.	307.92
Temperature range (K), max.	457.91

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C637978&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume